What is claimed is:

1.   A method for operating an I/O channel of a computer system, comprising the steps of:

Providing a plurality of modes including:

a new high function mode operating as a new peer mode with respect to its attached channel at the opposite end of a link; and

an old compatibility mode operating through a converter to multiple sender and/or receiver channels connected at the opposite end of the converter sink ports, and

operating the channel when said new peer mode is directly connected to another identical channel operating in the same said new peer mode.

2.   The method as recited in claim 1, wherein the channel operating in the new peer mode uses all of its message passing resources to exchange the maximum number of messages concurrently as possible.

3.   The method as recited in claim 1, wherein the channel operates in a second old compatibility mode and is attached to a converter that allows further attachment to a plurality of older systems' channels.

4.   The method as recited in claim 1, wherein the channel operating in said second old compatibility mode divides its message passing resources among the multiple sink ports of said converter.

5.   The method as recited in claim 5, wherein said

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converter comprises the functions:

keeps no state information;

adjusts differences in line speeds between the source and sink ports;

routes outbound packets to the correct sink port; and

adds source information to inbound packets.

6.   The method as recited in claim 1, wherein the channel operating in said old comparability mode appears to the software as a plurality of independent channels operating in the old mode.

7.   The method as recited in claim 7, wherein the channel operating in the old compatibility mode processes commands from the software giving the illusion of multiple separate old channels.

8.   The method as recited in claim 7, wherein the channel operating in the old compatibility mode presents interruption, busy, state, and error information to the software giving the illusion of having a plurality of separate channels operating in the old mode.

9.   The method as recited in claim 1, wherein the channel operating in the old compatibility mode provides a plurality of independent sequence numbers, one pair for each converter sink port.